

Innen und Außengewinde
ISO-metrisch, Trapez und API Rundgewinde
Withworth für BSW und BSP

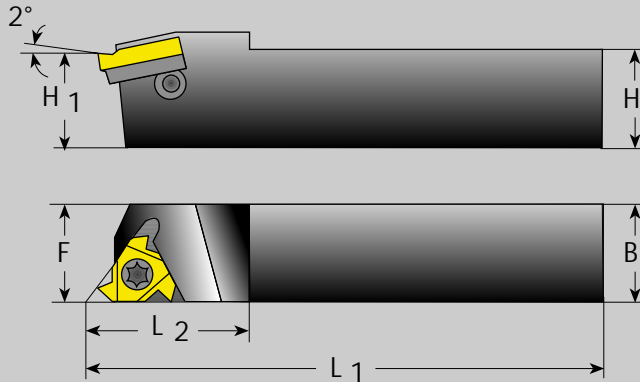
Internal and external threading
ISO-metric, Trapey and API round
Withworth for BSW and BSP



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Außengewindehalter External Toolholder



STER ... / STEL ...

Lieferzeit / delivery time

- ☞ ab Lager lieferbar - Zwischenverkauf vorbehalten
- ☞ on stock, subject to prior sale
- ▣ mittelfristig lieferbar (~ 2 - 3 Wochen)
- ▣ middle term (~ 2 - 3 weeks)
- ◆ nicht lagerhaltig - Lieferzeit auf Anfrage
- ◆ not on stock, delivery time upon request

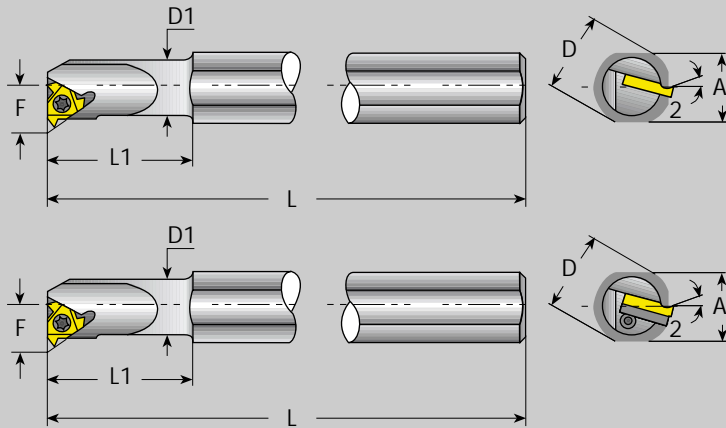
STER = rechte Ausführung (wie gezeichnet) / right hand (like drawing)
STEL = linke Ausführung (spiegelbildlich) / left hand (mirror image)

Gewindeplatten ☞ Inserts
Seite/Page 05 - 11

H	Bestellnummer part number	Lieferstatus • stock	H1	B	F	L1	L2	Gewindeplatten
8	STER0808L11	◆	8	8	11	140	17,5	TNGE1103••R
16	STER1616H16	◆	16	16	16	100	20,5	TNGE16T3••R
20	STER2020K16	◆	20	20	20	125	30,0	TNGE16T3••R
25	STER2525M16	◆	25	25	25	150	30,0	TNGE16T3••R
32	STER3232P16	◆	32	32	32	170	30,0	TNGE16T3••R
25	STER2525M22	◆	25	25	25	150	36,0	TNGE2204••R
32	STER3232P22	◆	32	32	32	170	36,0	TNGE2204••R
8	STEL0808L11	◆	8	8	11	140	17,5	TNGE1103••L
16	STEL1616H16	◆	16	16	16	100	20,5	TNGE16T3••L
20	STEL2020K16	◆	20	20	20	125	30,0	TNGE16T3••L
25	STEL2525M16	◆	25	25	25	150	30,0	TNGE16T3••L
32	STEL3232P16	◆	32	32	32	170	30,0	TNGE16T3••L
25	STEL2525M22	◆	25	25	25	150	36,0	TNGE2204••L
32	STEL3232P22	◆	32	32	32	170	36,0	TNGE2204••L

Oben aufgeführte Halter haben einen Steigungswinkel von 1.5°. Andere Steigungswinkel siehe Seite 12 & 13.
 Halter STE..11 sind ohne Unterlegplatte konzipiert.

The Toolholder above, have a lead angle of 1.5°. Other lead angle see on page 12 and 13.
 Toolholder STE..11 is without a anvil



.. STIR .. / .. STIL ..

Lieferzeit / delivery time

- ☞ ab Lager lieferbar - Zwischenverkauf vorbehalten
- ☞ on stock, subject to prior sale
- ☑ mittelfristig lieferbar (~ 2 - 3 Wochen)
- ☑ middle term (~ 2 - 3 weeks)
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- ◆ not on stock, delivery time upon request

STIR = rechte Ausführung (wie gezeichnet) / right hand (like drawing)
STIL = linke Ausführung (spiegelbildlich) / left hand (mirror image)

Gewindeplatten ☞ Inserts
Seite/Page 05 - 11

Bohr.Ø	Bestellnummer part number	Lieferstatus • stock	D	D1	F	A	L	L1	Gewinde- platten
13	S10QSTIR11	◆	20	10	7.3	18	180	25	TNGI1103•• R
16	S13QSTIR11	◆	20	13	8.9	18	180	32	TNGI1103•• R
20	S16QSTIR16	◆	20	16	11.5	18	180	40	TNGI16T3•• R
27	S20QSTIR22	◆	20	20	15.6	18	180	50	TNGI2204•• R
13	S10QSTIL11	◆	20	10	7.3	18	180	25	TNGI1103•• L
16	S13QSTIL11	◆	20	13	8.9	18	180	32	TNGI1103•• L
20	S16QSTIL16	◆	20	16	11.5	18	180	40	TNGI16T3•• L
27	S20QSTIL22	◆	20	20	15.6	18	180	50	TNGI2204•• L
24	S20QSTIR16	◆	20	20	13.4	18	180	40	TNGI16T3•• R
29	S25SSTIR16	◆	32	25	16.3	29	250	60	TNGI16T3•• R
36	S32SSTIR16	◆	32	32	19.6	29	250	60	TNGI16T3•• R
32	S25SSTIR22	◆	32	25	17.4	29	250	60	TNGI2204•• R
39	S32SSTIR22	◆	32	32	21.5	29	250	60	TNGI2204•• R
24	S20QSTIL16	◆	20	20	13.4	18	180	40	TNGI16T3•• L
29	S25SSTIL16	◆	32	25	16.3	29	250	60	TNGI16T3•• L
36	S32SSTIL16	◆	32	32	19.6	29	250	60	TNGI16T3•• L
32	S25SSTIL22	◆	32	25	17.4	29	250	60	TNGI2204•• L
39	S32SSTIL22	◆	32	32	21.5	29	250	60	TNGI2204•• L

Oben aufgeführte Halter haben einen Steigungswinkel von 1.5°. Andere Steigungswinkel siehe Seite 12 & 13.
 Halter ..11 sind ohne Unterlegplatte konzipiert.

The Toolholder above, have a lead angle of 1.5°. Other lead angle see on page 12 and 13.
 Toolholder ..11 is without a anvil

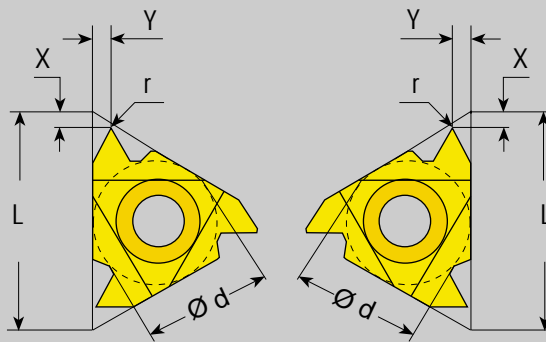
Gewindeplatten

Inserts

Teilprofil 60° & Teilprofil 55° [Außen / Innen]
 Partial profile 60° & partial profile 55° [External / Internal]



Außengew. Rechts (R)
 Innengew. Links (L)
 Outside thread right (R)
 Inside thread left (L)



Aussengew. Links (L)
 Innengew. Rechts (R)
 Outside thread left (L)
 Inside thread right (R)

Gewindehalter Toolholder
 Seite/Page 03 - 04

Steigung in mm lead [mm]	Bestellnummer part number	lieferbare Schneidstoffe available grades					L	Ø d	X	Y	s	r	G/Z
		P40 -02	K10 -04	Zg625 -56	Zs626 -65	Fm7 -66							
0.50 - 1.50	TNGE11030515A60R/L	◆	◆	◆	◆	◆	11.0	6.35	0.8	0.9	3.0	0.05	48 - 16
0.50 - 1.50	TNGE16T30515G60R/L	◆	◆	◆	◆	◆	16.0	9.52	0.8	0.9	3.4	0.05	48 - 16
1.75 - 3.00	TNGE16T31730G60R/L	◆	◆	◆	◆	◆	16.0	9.52	1.2	1.7	3.4	0.27	14 - 8
0.50 - 3.00	TNGE16T30530G60R/L	◆	◆	◆	◆	◆	16.0	9.52	1.2	1.7	3.4	0.08	48 - 8
3.50 - 5.00	TNGE22043550N60R/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.5	4.6	0.53	7 - 5
0.50 - 1.50	TNGI11030515A60R/L	◆	◆	◆	◆	◆	11.0	6.35	0.8	0.9	3.0	0.05	48 - 16
0.50 - 1.50	TNGI16T30515G60R/L	◆	◆	◆	◆	◆	16.0	9.52	0.8	0.9	3.4	0.05	48 - 16
1.75 - 3.00	TNGI16T31730G60R/L	◆	◆	◆	◆	◆	16.0	9.52	1.2	1.7	3.4	0.16	14 - 8
0.50 - 3.00	TNGI16T30530G60R/L	◆	◆	◆	◆	◆	16.0	9.52	1.2	1.7	3.4	0.05	48 - 8
3.50 - 5.00	TNGI22043550N60R/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.5	4.6	0.30	7 - 5
0.50 - 1.50	TNGE11030515A55R/L	◆	◆	◆	◆	◆	11.0	6.35	0.8	0.9	3.0	0.05	48 - 16
0.50 - 1.50	TNGE16T30515G55R/L	◆	◆	◆	◆	◆	16.0	9.52	0.8	0.9	3.4	0.05	48 - 16
1.75 - 3.00	TNGE16T31730G55R/L	◆	◆	◆	◆	◆	16.0	9.52	1.2	1.7	3.4	0.21	14 - 8
0.50 - 3.00	TNGE16T30530G55R/L	◆	◆	◆	◆	◆	16.0	9.52	1.2	1.7	3.4	0.07	48 - 8
3.50 - 5.00	TNGE22043550N55R/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.5	4.6	0.43	7 - 5
0.50 - 1.50	TNGI11030515A55R/L	◆	◆	◆	◆	◆	11.0	6.35	0.8	0.9	3.0	0.05	48 - 16
0.50 - 1.50	TNGI16T30515G55R/L	◆	◆	◆	◆	◆	16.0	9.52	0.8	0.9	3.4	0.05	48 - 16
1.75 - 3.00	TNGI16T31730G55R/L	◆	◆	◆	◆	◆	16.0	9.52	1.2	1.7	3.4	0.21	14 - 8
0.50 - 3.00	TNGI16T30530G55R/L	◆	◆	◆	◆	◆	16.0	9.52	1.2	1.7	3.4	0.07	48 - 8
3.50 - 5.00	TNGI22043550N55R/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.5	4.6	0.43	7 - 5

Ausführung R oder L angeben
 State R or L version

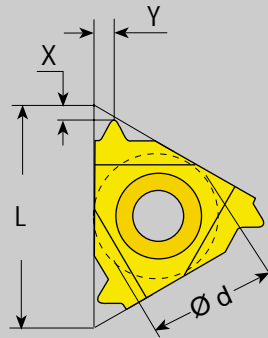
Lieferzeit

ab Lager lieferbar - Zwischenverkauf vorbehalten
 mittelfristig lieferbar (~ 2 - 3 Wochen)
 nicht lagerhaltig - Lieferzeit auf Anfrage

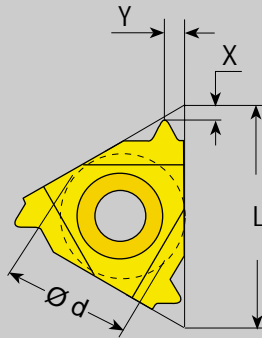
delivery time

on stock, subject to prior sale
 middle term (~ 2 - 3 weeks)
 not on stock, delivery time upon request

Rechts (R)
right (R)



Links (L)
left (L)



Gewindehalter \varnothing Toolholder
Seite/Page 03 - 04

Steigung in mm lead [mm]	Nenn - Ø d rated - Ø d	Bestellnummer part number	lieferbare Schneidstoffe available grades					L	Ø d	X	Y	s
			P40 -02	K10 -04	Zg625 -56	Zs626 -65	Fm7 -66					
0.50	M3	TNGE1103050ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.6	0.6	3.0
0.70	M4	TNGE1103070ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.6	0.6	3.0
0.75	M4.5	TNGE1103075ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.6	0.6	3.0
0.80	M5	TNGE1103080ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.6	0.6	3.0
1.00	M6	TNGE1103100ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.7	0.7	3.0
1.25	M8	TNGE1103125ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.8	0.9	3.0
1.50	M10	TNGE1103150ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.8	1.0	3.0
0.50	M3	TNGE16T3050ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.6	3.4
0.70	M4	TNGE16T3070ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.6	3.4
0.75	M4.5	TNGE16T3075ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.6	3.4
0.80	M5	TNGE16T3080ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.6	3.4
1.00	M6	TNGE16T3100ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.7	0.7	3.4
1.25	M8	TNGE16T3125ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	0.9	3.4
1.50	M10	TNGE16T3150ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	1.0	3.4
1.75	M12	TNGE16T3175ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.9	1.2	3.4
2.00	M14	TNGE16T3200ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	1.0	1.3	3.4
2.50	M18	TNGE16T3250ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.5	3.4
3.00	M24	TNGE16T3300ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	1.2	1.6	3.4
3.50	M30	TNGE2204350ISOR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
4.00	M36	TNGE2204400ISOR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
4.50	M42	TNGE2204450ISOR/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.4	4.6
5.00	M48	TNGE2204500ISOR/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.5	4.6

Ausführung R oder L angeben
State R or L version

Lieferzeit

ab Lager lieferbar - Zwischenverkauf vorbehalten
mittelfristig lieferbar (~ 2 - 3 Wochen)
nicht lagerhaltig - Lieferzeit auf Anfrage

delivery time

on stock, subject to prior sale
middle term (~ 2 - 3 weeks)
not on stock, delivery time upon request

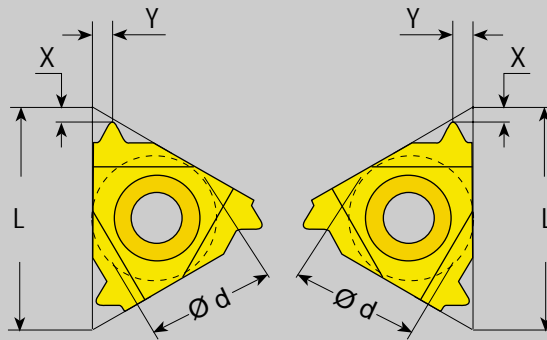
Gewindeplatten

Inserts

ISO metrisch Innen (DIN 13)
ISO metric internal (DIN 13)



Links (L)
left (L)



Rechts (R)
right (R)

Gewindehalter Toolholder
Seite/Page 03 - 04

Steigung in mm lead [mm]	Bestellnummer part number	lieferbare Schneidstoffe available grades					L	Ø d	X	Y	s
		P40 -02	K10 -04	Zg625 -56	Zs626 -65	Fm7 -66					
0.50	TNGI1103050ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.6	0.6	3.0
0.70	TNGI1103070ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.6	0.6	3.0
0.75	TNGI1103075ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.6	0.6	3.0
0.80	TNGI1103080ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.6	0.6	3.0
1.00	TNGI1103100ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.7	0.7	3.0
1.25	TNGI1103125ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.8	0.9	3.0
1.50	TNGI1103150ISOR/L	◆	◆	◆	◆	◆	11.0	6.35	0.8	1.0	3.0
0.50	TNGI16T3050ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.6	3.4
0.70	TNGI16T3070ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.6	3.4
0.75	TNGI16T3075ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.6	3.4
0.80	TNGI16T3080ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.6	3.4
1.00	TNGI16T3100ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.7	0.7	3.4
1.25	TNGI16T3125ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	0.9	3.4
1.50	TNGI16T3150ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	1.0	3.4
1.75	TNGI16T3175ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	0.9	1.2	3.4
2.00	TNGI16T3200ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	1.0	1.3	3.4
2.50	TNGI16T3250ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.5	3.4
3.00	TNGI16T3300ISOR/L	◆	◆	◆	◆	◆	16.5	9.52	1.2	1.6	3.4
3.50	TNGI2204350ISOR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
4.00	TNGI2204400ISOR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
4.50	TNGI2204450ISOR/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.4	4.6
5.00	TNGI2204500ISOR/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.5	4.6

Ausführung R oder L angeben
State R or L version

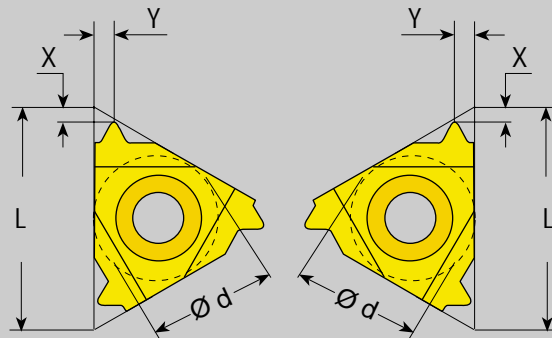
Lieferzeit

ab Lager lieferbar - Zwischenverkauf vorbehalten
mittelfristig lieferbar (~ 2 - 3 Wochen)
nicht lagerhaltig - Lieferzeit auf Anfrage

delivery time

on stock, subject to prior sale
middle term (~ 2 - 3 weeks)
not on stock, delivery time upon request

Außengew. Rechts (R)
Innengew. Links (L)
Outside thread right (R)
Inside thread left (L)



Aussengew. Links (L)
Innengew. Rechts (R)
Outside thread left (L)
Inside thread right (R)

Gewindehalter  Toolholder
Seite/Page 03 - 04

	Steigung in TPI lead [TPI]	Bestellnummer part number	lieferbare Schneidstoffe available grades					L	Ø d	X	Y	s
			P40 -02	K10 -04	Zg625 -56	Zs626 -65	Fm7 -66					
	28	TNGE16T328WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.7	3.4
	26	TNGE16T326WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.7	0.8	3.4
	24	TNGE16T324WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.7	0.8	3.4
	20	TNGE16T320WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	0.9	3.4
	19	TNGE16T319WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	1.0	3.4
	18	TNGE16T318WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	1.0	3.4
	16	TNGE16T316WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.9	1.1	3.4
	14	TNGE16T314WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.0	1.2	3.4
	12	TNGE16T312WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.4	3.4
	11	TNGE16T311WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.5	3.4
	10	TNGE16T310WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.5	3.4
	09	TNGE16T309WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.2	1.7	3.4
	08	TNGE16T308WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.2	1.7	3.4
	07	TNGE220407WR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
	06	TNGE220406WR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
	05	TNGE220405WR/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.4	4.6
	28	TNGI16T328WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.7	3.4
	26	TNGI16T326WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.7	0.8	3.4
	24	TNGI16T324WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.7	0.8	3.4
	20	TNGI16T320WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	0.9	3.4
	19	TNGI16T319WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	1.0	3.4
	18	TNGI16T318WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	1.0	3.4
	16	TNGI16T316WR/L	◆	◆	◆	◆	◆	16.5	9.52	0.9	1.1	3.4
	14	TNGI16T314WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.0	1.2	3.4
	12	TNGI16T312WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.4	3.4
	11	TNGI16T311WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.5	3.4
	10	TNGI16T310WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.5	3.4
	09	TNGI16T309WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.2	1.7	3.4
	08	TNGI16T308WR/L	◆	◆	◆	◆	◆	16.5	9.52	1.2	1.7	3.4
	07	TNGI220407WR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
	06	TNGI220406WR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
	05	TNGI220405WR/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.4	4.6

Ausführung R oder L angeben
State R or L version

Lieferzeit

ab Lager lieferbar - Zwischenverkauf vorbehalten
mittelfristig lieferbar (~ 2 - 3 Wochen)
nicht lagerhaltig - Lieferzeit auf Anfrage

delivery time

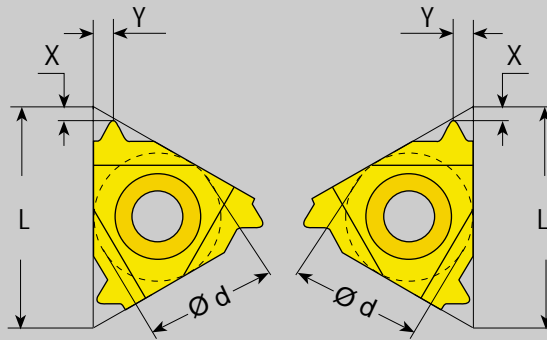
on stock, subject to prior sale
middle term (~ 2 - 3 weeks)
not on stock, delivery time upon request

Gewindeplatten Inserts

American UN [Außen / Innen]
American UN [External / Internal]



Außengew. Rechts (R)
Innengew. Links (L)
Outside thread right (R)
Inside thread left (L)



Aussengew. Links (L)
Innengew. Rechts (R)
Outside thread left (L)
Inside thread right (R)

Gewindehalter Toolholder
Seite/Page 03 - 04

Steigung in TPI lead [TPI]	Bestellnummer part number	lieferbare Schneidstoffe available grades					L	Ø d	X	Y	s
		P40 -02	K10 -04	Zg625 -56	Zs626 -65	Fm7 -66					
32	TNGE16T332UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.6	3.4
28	TNGE16T328UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.7	3.4
24	TNGE16T324UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.7	0.8	3.4
20	TNGE16T320UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	0.9	3.4
18	TNGE16T318UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	1.0	3.4
16	TNGE16T316UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.9	1.1	3.4
14	TNGE16T314UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.0	1.2	3.4
12	TNGE16T312UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.4	3.4
11	TNGE16T311UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.5	3.4
10	TNGE16T310UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.5	3.4
09	TNGE16T309UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.2	1.7	3.4
08	TNGE16T308UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.2	1.8	3.4
07	TNGE220407UNR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
06	TNGE220406UNR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
05	TNGE220405UNR/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.5	4.6
32	TNGI16T332UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.6	3.4
28	TNGI16T328UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.6	0.7	3.4
24	TNGI16T324UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.7	0.8	3.4
20	TNGI16T320UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	0.9	3.4
18	TNGI16T318UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.8	1.0	3.4
16	TNGI16T316UNR/L	◆	◆	◆	◆	◆	16.5	9.52	0.9	1.1	3.4
14	TNGI16T314UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.0	1.2	3.4
12	TNGI16T312UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.4	3.4
11	TNGI16T311UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.5	3.4
10	TNGI16T310UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.5	3.4
09	TNGI16T309UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.2	1.7	3.4
08	TNGI16T308UNR/L	◆	◆	◆	◆	◆	16.5	9.52	1.2	1.8	3.4
07	TNGI220407UNR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
06	TNGI220406UNR/L	◆	◆	◆	◆	◆	22.0	12.7	1.6	2.3	4.6
05	TNGI220405UNR/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	2.5	4.6

Ausführung R oder L angeben
State R or L version

Lieferzeit

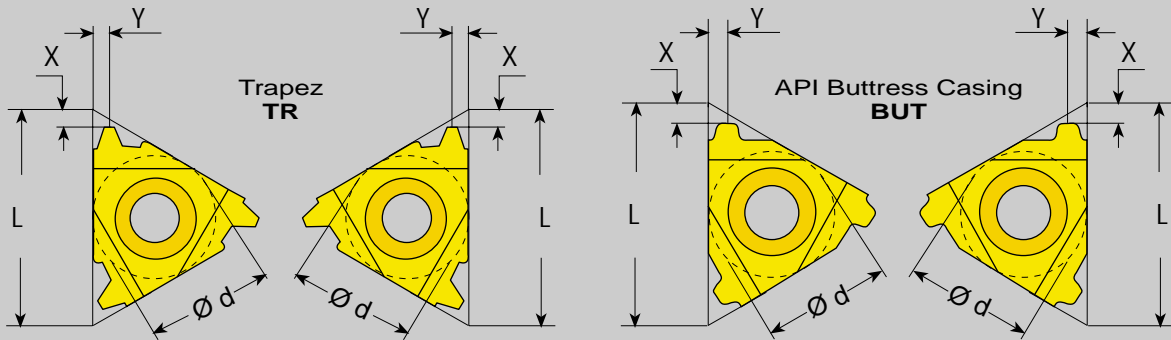
ab Lager lieferbar - Zwischenverkauf vorbehalten
mittelfristig lieferbar (~ 2 - 3 Wochen)
nicht lagerhaltig - Lieferzeit auf Anfrage

delivery time

on stock, subject to prior sale
middle term (~ 2 - 3 weeks)
not on stock, delivery time upon request

Gewindeplatten Inserts

Trapez (DIN 103) \ API Buttress Casing [Außen / Innen]
Trapez (DIN 103) \ API Buttress Casing [External / Internal]



Außengew. Rechts (R)
Innengew. Links (L)
Outside thread right (R)
Inside thread left (L)

Aussengew. Links (L)
Innengew. Rechts (R)
Outside thread left (L)
Inside thread right (R)

Außengew. Rechts (R)
Innengew. Links (L)
Outside thread right (R)
Inside thread left (L)

Aussengew. Links (L)
Innengew. Rechts (R)
Outside thread left (L)
Inside thread right (R)

	Steigung in TPI lead [TPI]	Bestellnummer part number	lieferbare Schneidstoffe available grades					L	Ø d	X	Y	s	
			P40 -02	K10 -04	Zg625 -56	Zs626 -65	Fm7 -66						
TR	1.5	TNGE16T3150TRR/L	◆	◆	◆	◆	◆	16.5	9.52	1.0	1.1	3.4	
	2.0	TNGE16T3200TRR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.3	3.4	
	3.0	TNGE16T3300TRR/L	◆	◆	◆	◆	◆	16.5	9.52	1.3	1.5	3.4	
	4.0	TNGE2204400TRR/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	1.9	4.6	
	5.0	TNGE2204500TRR/L	◆	◆	◆	◆	◆	22.0	12.7	2.1	2.5	4.6	
	1.5	TNGI16T3150TRR/L	◆	◆	◆	◆	◆	16.5	9.52	1.0	1.1	3.4	
	2.0	TNGI16T3200TRR/L	◆	◆	◆	◆	◆	16.5	9.52	1.1	1.3	3.4	
	3.0	TNGI16T3300TRR/L	◆	◆	◆	◆	◆	16.5	9.52	1.3	1.5	3.4	
	4.0	TNGI2204400TRR/L	◆	◆	◆	◆	◆	22.0	12.7	1.7	1.9	4.6	
	5.0	TNGI2204500TRR/L	◆	◆	◆	◆	◆	22.0	12.7	2.1	2.5	4.6	
	BUT	5 / 0.75	TNGE2205075BUTR	◆	◆	◆			22.0	12.7	3.1	1.9	4.6
		5 / 1.00	TNGE2205100BUTR	◆	◆	◆			22.0	12.7	2.8	1.9	4.6
5 / 0.75		TNGI2205075BUTR	◆	◆	◆			22.0	12.7	3.1	1.9	4.6	
5 / 1.00		TNGI2205100BUTR	◆	◆	◆			22.0	12.7	2.8	1.9	4.6	

Gewindehalter ≙ Toolholder
Seite/Page 03 - 04

Ausführung R oder L angeben
State R or L version

Lieferzeit

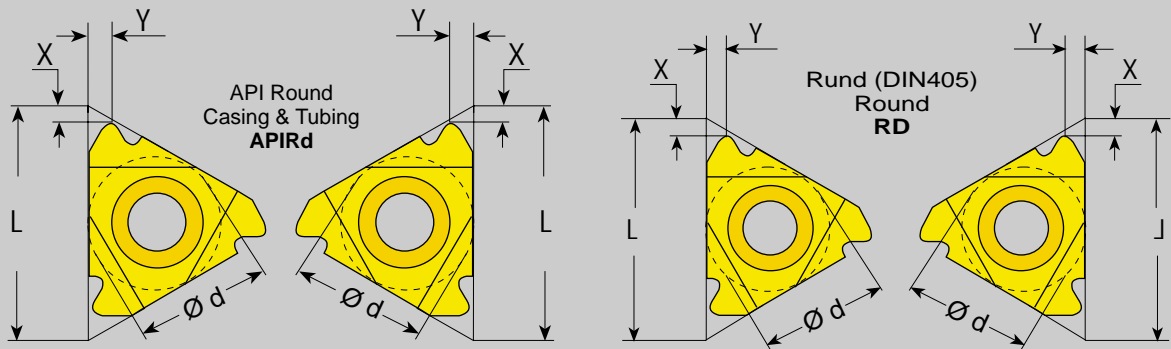
ab Lager lieferbar - Zwischenverkauf vorbehalten
mittelfristig lieferbar (~ 2 - 3 Wochen)
nicht lagerhaltig - Lieferzeit auf Anfrage

delivery time

on stock, subject to prior sale
middle term (~ 2 - 3 weeks)
not on stock, delivery time upon request

Gewindeplatten Inserts

API Rundgewinde Casing & Tubing \ Rund [Außen & Innen]
API Round Casing & Tubing \ Round [External & Internal]



Außengew. Rechts (R)
Innengew. Links (L)
Outside thread right (R)
Inside thread left (L)

Aussengew. Links (L)
Innengew. Rechts (R)
Outside thread left (L)
Inside thread right (R)

Außengew. Rechts (R)
Innengew. Links (L)
Outside thread right (R)
Inside thread left (L)

Aussengew. Links (L)
Innengew. Rechts (R)
Outside thread left (L)
Inside thread right (R)

	Steigung in TPI lead [TPI]	Bestellnummer part number	lieferbare Schneidstoffe available grades					L	Ø d	X	Y	s
			P40 -02	K10 -04	Zg625 -56	Zs626 -65	Fm7 -66					
APIRd	10 08	TNGE16T310APIRdR	◆	◆	◆		16.5	9.52	1.2	1.4	3.4	
		TNGE16T308APIRdR	◆	◆	◆		16.5	9.52	1.3	1.5	3.4	
	10 08	TNGI16T310APIRdR	◆	◆	◆		22.0	9.52	1.2	1.4	3.4	
		TNGI16T308APIRdR	◆	◆	◆		22.0	9.52	1.3	1.5	3.4	
RD	10 08 06	TNGE16T310RDR/L	◆	◆	◆		16.5	9.52	1.1	1.2	3.4	
		TNGE16T308RDR/L	◆	◆	◆		16.5	9.52	1.4	1.3	3.4	
		TNGE16T306RDR/L	◆	◆	◆		16.5	9.52	1.5	1.7	3.4	
	06 04	TNGE220406RDR/L	◆	◆	◆		22.0	12.7	1.5	1.7	4.6	
		TNGE220404RDR/L	◆	◆	◆		22.0	12.7	2.2	2.3	4.6	
	10 08 06	TNGI16T310RDR/L	◆	◆	◆		16.5	9.52	1.1	1.2	3.4	
		TNGI16T308RDR/L	◆	◆	◆		16.5	9.52	1.4	1.3	3.4	
		TNGI16T306RDR/L	◆	◆	◆		16.5	9.52	1.5	1.7	3.4	
	06 04	TNGI220406RDR/L	◆	◆	◆		22.0	12.7	1.5	1.7	4.6	
		TNGI220404RDR/L	◆	◆	◆		22.0	12.7	2.2	2.3	4.6	

Gewindehalter ⇔ Toolholder
Seite/Page 03 - 04

Ausführung R oder L angeben
State R or L version

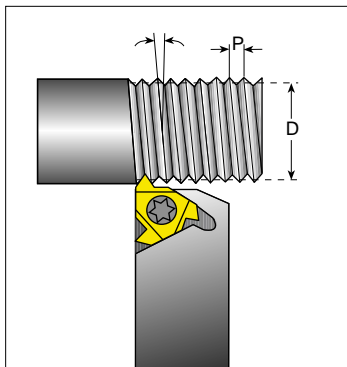
Lieferzeit
ab Lager lieferbar - Zwischenverkauf vorbehalten
mittelfristig lieferbar (~ 2 - 3 Wochen)
nicht lagerhaltig - Lieferzeit auf Anfrage

delivery time
on stock, subject to prior sale
middle term (~ 2 - 3 weeks)
not on stock, delivery time upon request

Bestellnummer part number Gewindehalter Toolholder	Plattengröße Ø d	Bestellnummer part number Klemmschraube Clampingscrew	Lieferstatus • stock	Bestellnummer part number Unterlagschraube Anvil Screw	Lieferstatus • stock	Bestellnummer part number Torx Schlüssel Torx Key	Lieferstatus • stock	Bestellnummer part number Unterlage Anvil		Lieferstatus • stock	Lieferstatus • stock
		STER STIL	STEL STIR								
STE••••• 11	6.35	S5.01	◆		◆	SCH2.02	◆			◆	◆
STE••••• 16	9.52	S6.02	◆	B6.06	◆	SCH2.05	◆	A6.16ER	A6.16IR	◆	◆
STE••••• 22	12.70	S6.03	◆	B6.07	◆	SCH2.06	◆	A6.22ER	A6.22IR	◆	◆
••••• STI• 11	6.35	S5.01	◆		◆	SCH2.02	◆			◆	◆
• 16• STI• 16	9.52	S6.04	◆	B6.06	◆	SCH2.05	◆	A6.16ER	A6.16IR	◆	◆
••••• STI• 16	9.52	S6.02	◆	B6.06	◆	SCH2.05	◆	A6.16ER	A6.16IR	◆	◆
• 20• STI• 22	12.70	S6.05	◆	B6.07	◆	SCH2.06	◆	A6.22ER	A6.22IR	◆	◆
••••• STI• 22	12.70	S6.03	◆	B6.07	◆	SCH2.06	◆	A6.22ER	A6.22IR	◆	◆

Resultierender Steigungswinkel Resultant lead angle	Klemmhalter Toolholder	4.5°	3.5°	2.5°	1.5°	0°	0.5°	-0.5°	-1.5°	
Plattengröße Insert size	Bestellnummer Part number									
16	STER / STIL	A6.16ER-3P	A6.16ER-2P	A6.16ER-1P	A6.16ER	A6.16ER-1N	A6.16ER-2N	A6.16ER-3N	A6.16ER-4N	
	STEL / STIR	A6.16IR-3P	A6.16IR-2P	A6.16IR-1P	A6.16IR	A6.16IR-1N	A6.16IR-2N	A6.16IR-3N	A6.16IR-4N	
22	STER / STIL	A6.22ER-3P	A6.22ER-2P	A6.22ER-1P	A6.22ER	A6.22ER-1N	A6.22ER-2N	A6.22ER-3N	A6.22ER-4N	
	STEL / STIR	A6.22IR-3P	A6.22IR-2P	A6.22IR-1P	A6.22IR	A6.22IR-1N	A6.22IR-2N	A6.22IR-3N	A6.22IR-4N	

Die Berechnung des Steigungswinkels Calculating the lead angle



$$\alpha = \arctan \frac{P \times N}{\pi \times D}$$

Der Steigungswinkel wird mit oben aufgeführter Formel berechnet:

α = Steigungswinkel (°)
P = Gewindesteigung (mm)
D = Flankendurchmesser (mm)
N = Anzahl der Gänge

The lead angle is calculated by the above formular:

α = lead angle (°)
P = pitch (mm)
D = pitch diameter (mm)
N = no. of turns

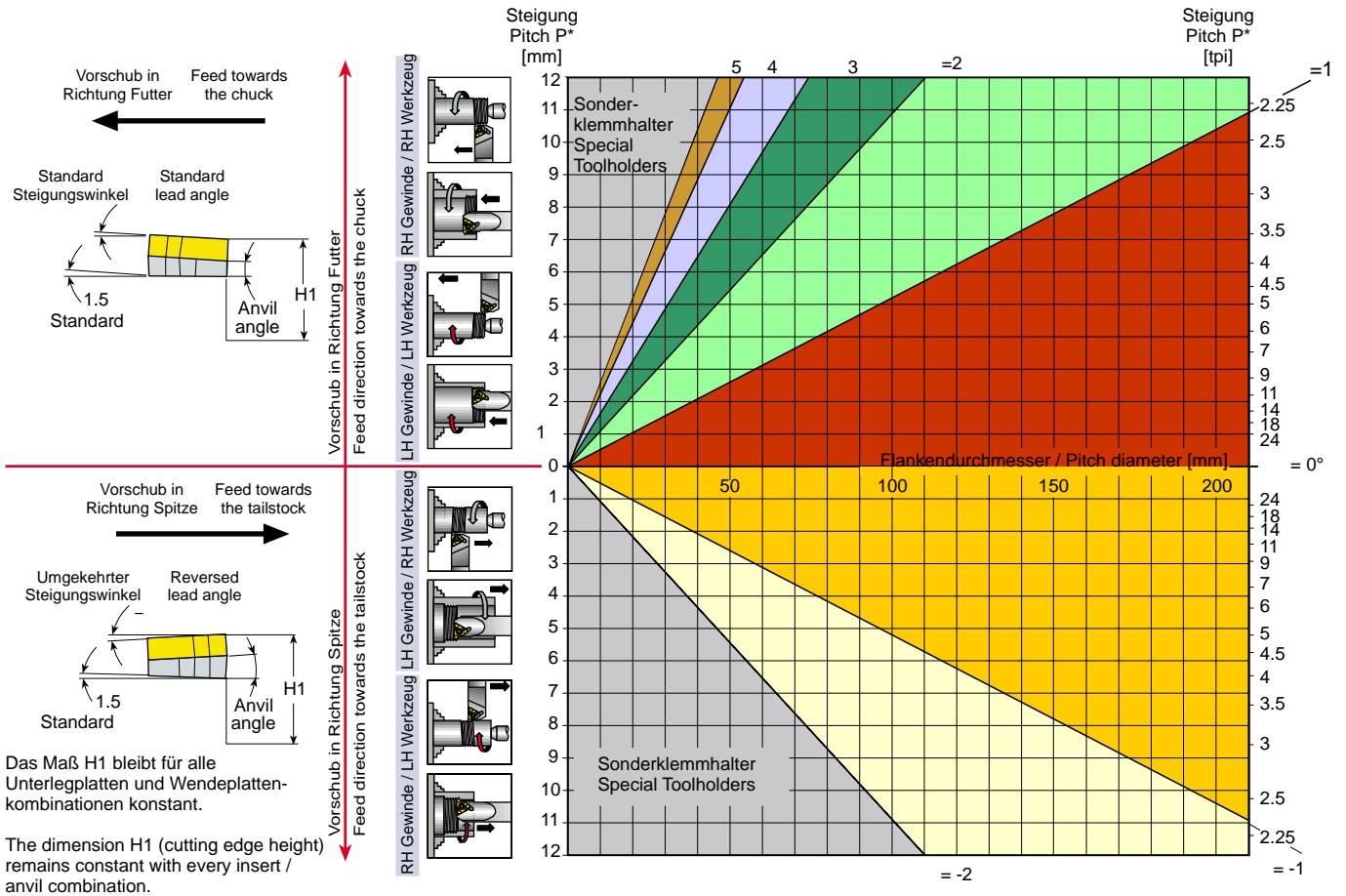
Der Steigungswinkel kann auch mit Hilfe des Diagramms auf Seite 13 ermittelt werden.

The lead angle can also be found from the diagram on page 13.

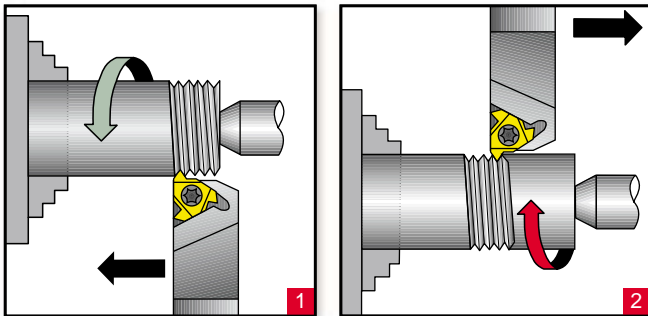
Technische Informationen

Technical information

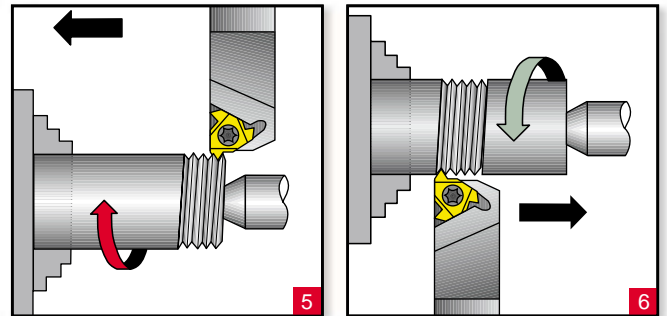
Steigungswinkel Diagramm / Bearbeitungsmethoden Gewindedrehen Helix Angle Diagram / Thread Turning Methods



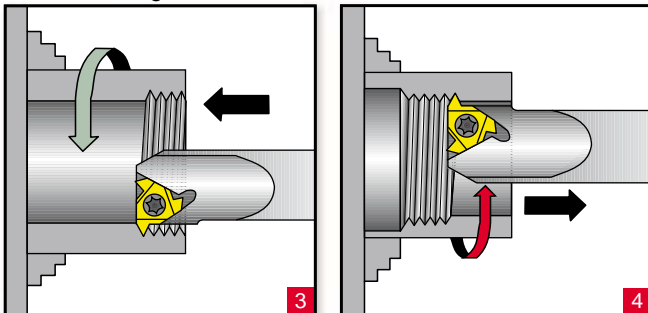
Aussen-Rechtsgewinde / External RH Thread



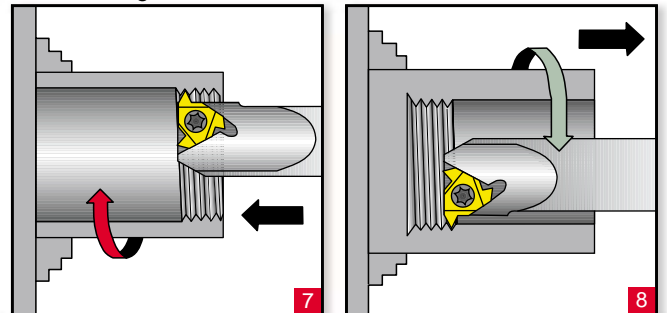
Aussen-Linksgewinde / External LH Thread



Innen-Rechtsgewinde / Internal RH Thread



Innen-Linksgewinde / Internal LH Thread





Technische Informationen

Technical information

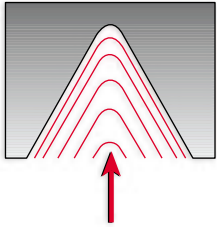
Gewindezustellungsmethoden / Anzahl der Durchgänge

Thread Infeed Methods / Number of Passes

Gewindezustellungsmethoden

Thread Infeed Methods

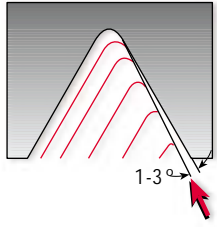
Radiale Zustellung
Radial Infeed



Radial infeed method description text.

- ABCÜZ

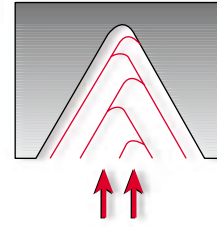
Zustellung entlang der Flanke
Flank Infeed (modified)



Modified flank infeed method description text.

Additional text for modified flank infeed.

Wechselseitige Zustellung
Alternate Flank Infeed



Alternate flank infeed method description text.

Use of the alternate flank method is recommended especially in large pitches and materials with long chips. This method divides the load equally on both flanks, resulting in equal wear along the cutting edges. Alternate flank infeed requires more complicated programming, and is not available on all lathes.

Additional technical notes and parameters for the infeed methods.

Anzahl der Durchgänge

Number of passes

Gewinde- steigung Pitch	mm	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	8.00
	tpi	48	32	24	20	16	14	12	10	8	7	6	5.5	5	4.5	4	3
Anzahl der Durchgänge No. of passes		4-6	4-7	4-8	5-9	6-10	7-12	7-12	8-14	9-16	10-18	11-18	11-19	12-20	12-20	12-20	15-24

Technische Informationen
Technical information
Schnittgeschwindigkeiten
Recommended Grade



Hartmetallsorte material	P40 -02	K10 -04	Zg625 -56	Zs626 -65	Fm7 -66
P Kohlenstoffstahl carbon steel < 650 N/mm ²	70 - 130	-	75 - 200	115 - 190	-
	70 - 120	-	75 - 160	90 - 165	-
	50 - 80	-	55 - 110	85 - 145	-
	20 - 55	-	25 - 100	50 - 100	-
M Rostfreier Stahl (austenitisch) stainless steel (austenitic) 500 - 700 N/mm ²	75 - 110	-	80 - 140	90 - 140	60 - 160
	70 - 100	-	100 - 160	70 - 130	70 - 150
	75 - 125	-	80 - 180	75 - 140	-
	-	70 - 95	-	70 - 130	-
K Exotische Werkstoffe exotic materials 1000 - 1300 N/mm ²	-	-	-	40 - 85	-
	-	110 - 190	100 - 400	80 - 225	120 - 500
	-	110 - 190	-	100 - 400	120 - 500

<p> = ausgezeichnet = sehr gut = gut </p>	<p> = excellent = very well = well </p>
---	---

Sortenübersicht - Verwendungszweck
Summary of carbide types - application purpose

Type Typ	Schneidstoff Cutting quality	Werkstückstoff Material	Eignung Suitability
P40 (-02)	P40 (unbeschichtet) (uncoated)	Stahl (steel)	☹️
K10 (-04)	K10 (unbeschichtet) (uncoated)	GG / GGG (cast iron) NE-Metalle (non ferrous metal) Titanlegierung (Titanium alloys)	☹️ ☺️ ☹️
Zg625 (-56)	P40 (PVD-TiN beschichtet) (PVD-TiN - coated)	Stahl (steel) Nichtrostende Stähle (stainless steel)	☺️ ☺️
Zs626 (-65)	P40/M20/K10 (PVD-TiAlN beschichtet) (PVD-TiAlN coated)	Nichtrostende Stähle (stainless steel) GG / GGG / GTW (cast iron) NE-Metalle (non ferrous metal)	☺️ ☺️ ☺️
Fm7 (-66)	M20 (PVD-TiN beschichtet) (PVD-TiN - coated)	Nichtrostende Stähle (stainless steel)	☺️

<p> = gut geeignet = geeignet </p>	<p> = especially suitable for = suitable for </p>
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ZINNER GmbH

Präzisions-Werkzeugfabrik

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